Nobiliſſimi cujuſdam Angli Demonſtratio Synchroniſmi Vibrationum peractarum in *Cycloide*; nunc juris publici facta ex occaſione quam ſuppeditavit Rev. P. *Pardies*, de eodem Argumento Demonſtrationem exhibens ad calcem libelli nuper ab ipſo Gallicè editi de *Statica*, inferiùs à nobis commemorandi.

V. *Fig.* I. *Sint* a b, b c, c d, d e, e f, *&c. omnes invicem æquales*; & b 1, c 2, d 3, e 4, f 5, *&c. æqualiter creſcant ut* 1, 3, 5, 7, 9, *&c.*

*Dico, in hac Linea Grave quodlibet, cadens ex quovis ejus puncto, attingere fundum in eodem temporis ſpatio, quo eum attingeret ſi caderet ex quovis ejuſdem puncto alio.*

*Nam ſi ponas* $a = ab = bc = cd$ *&c.* $\&\ b = b1$, *&* $x$ *pro quolibet numero alterutrorum; tunc, ſi* x a *ponatur pro* a f, $xxb$ *repræſentet oportet* f ♪, *proindeque tempus deſcenſûs neceſſario erit* $\frac{xxb}{xxaa}$ *ſeu* $\frac{b}{aa}$; *atque idem in omnibus obtinet caſibus. Ergo, &c.*

*Dico inſuper, Curvam hanc eſſe Cycloidem. quod demonſtratu eſt facile ex Conſtructione, atque ex eo quod jam innuo; nempe, Curvam hanc* a b c d e f z *æquare duplum ultimæ rectarum, h. e.* 2 z ω, *&* a ω *æqualem eſſe ſemi-circumferentiæ Circuli cujus* z ω *eſt diameter; ac univerſim Triangulum* ♈♉♊ *repræſentare rectam* z ω; *& Quadratum* ♈♉♊♋, *Curvam* a b c d e f z, *& Quadrantem* ♈♉♋ *repræſentare rectam* a ω: *ac partes unius, partes alterius reſpectivé. Uti ſi* ♈♎♐ *repræſentat* f ♪, *tunc* ♈♎♑♋ *repræſentat* a ♪, *&* ♈♎♏♋ *repræſentat* a f. *At non vacat fuſiùs hæc proſequi.*

*Dico denique, Globulum ſuſpenſum è funiculo (juſtæ longitudinis) & intra duas Cycloides vibrantem, moveri in Cycloide. Quare Vibrationes ejuſmodi ſunt ſynchronæ. quod erat &c.*

*An Extract*

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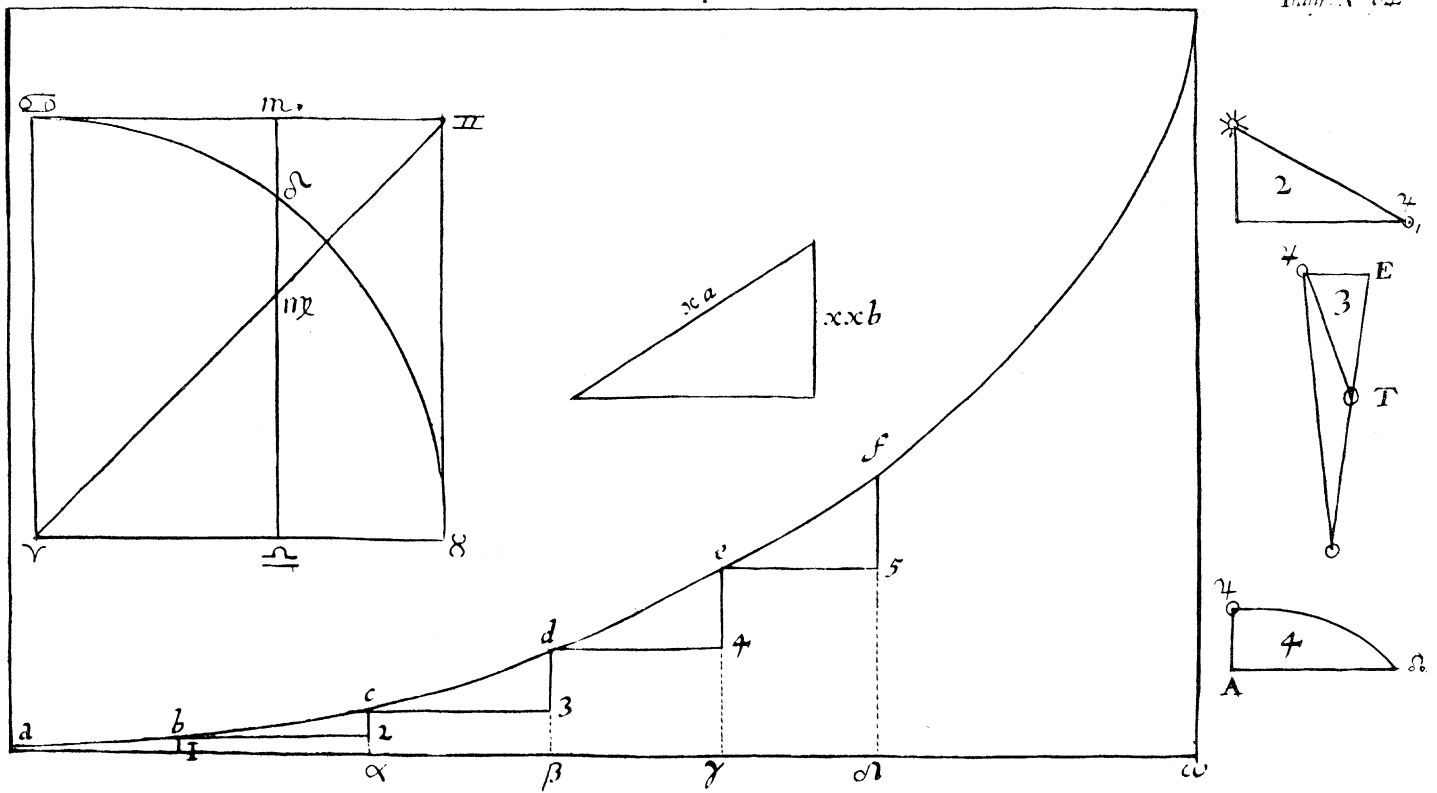
Tom. I. N°. 24.